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ABSTRACT

This paper examines the use of environmental scanning for institutions of higher education to achieve the following objectives: (1) provide early warning of changes that will have an impact on education; (2) define potential threats and opportunities to the institution or department; (3) promote a future orientation in faculty; and (4) alert faculty to trends that are converging/diverging, speeding up/slowing down. The following phases of scanning process are discussed: formation of a scanning team; the search for and selection of information resources to scan, the initiation of scanning and the establishment of a record-keeping system, analysis and reporting of results, and determination of the special actions to be taken based on the scanning results. Attached are several documents that can be used in environmental scanning, including a sample keyword checklist and a form for recording a summary of information found. (Contains 15 resources.) (GLR)

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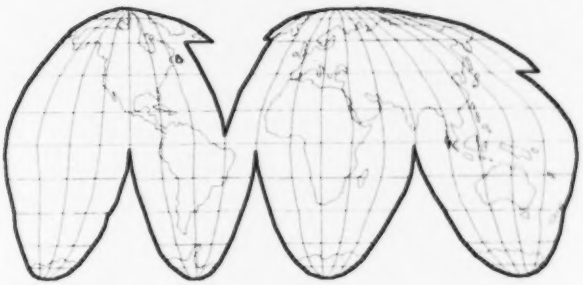
ENVIRONMENTAL SCANNING

Charting Your Way Through the Data Explosion



Presented at the 1993 Annual Adult Education Conference

November 18-20, 1993

Dallas, Texas

Presented
by
Sylvia Lieshoff

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Environmental Scanning

When the assumptions and rules we have lived by are dramatically changed in this fast-paced world of ours, we are often caught off guard and must scramble to address these changes. Looking for changes which constitute potential threats and opportunities in our environment is an important part of the strategic planning and program planning process in educational institutions. If we don't make a concerted effort of looking for emerging trends in our society, our program planning may suffer.

Most educational institutions have been looking only at demographics (eg. ethnic background, age, and gender of high school graduates) and legislative trends (eg. financial aid, affirmative action) as part of their planning. However, look at how new technology has radically changed the way we teach and the way students are learning. Electronic research techniques have changed the way we seek out new information, while satellite video and videodisk have changed the way we conduct education. Social and economic issues also affect education and need to be watched carefully. The political correctness movement and the reality of multiple career changes need to be addressed on campus. What we need then, is a system that will help us monitor emerging trends and issues in all these areas that may affect our colleges and universities.

Environmental scanning is a technique developed in industry over a decade ago to gather and evaluate information from the external environment. In education, its purpose is to:

(a) provide early warning of changes that will impact on education,

(b) define potential threats and opportunities to the institution or department,

(c) promote a future orientation in faculty, and

(d) alert faculty to trends that are converging/diverging, speeding up/slowing down.

Environmental scanning enables educators to understand and integrate rapid changes in the environment -- changes in political, social, technological, and economic issues that affect education (Morrison, 1992).

Scanning Process

So, how does one begin to undertake environmental scanning? First of all, the process can be done alone (Clagett, 1987), but is easier when done with the help of other interested colleagues. The scanning process involves many decisions that must be made.

Form a scanning team Invite colleagues that have shown an interest in scanning. Your first meeting should tackle such logistics as who might be included. Look for people with a variety of interests, including students. Remember, you want to include persons with interests in political, social, technological, and economic issues. In addition to in-house volunteers, invite external scanners such as advisory board members and elected officials in your community. Designate someone to coordinate the process. This may be your vice president, someone from the research department, or someone from the planning and budget office.

Decide how often you want to meet. Some scanning committees meet weekly, others monthly, and some manage quarterly. You may decide to meet weekly until you have worked out the kinks and you all understand the process. Another thing to consider is whether you want this venture to become a permanent, on-going committee, or just a short-term task force to prepare for the 5-year plan. However, with constant change in our world, an ongoing process is best.

Do you want this to be an active or passive scanning team? An active team will purposely select and assign resources for each member to scan, while a passive team will use those resources that each member is already reading/watching on a regular basis (Morrison, 1992).

Search for and select information resources to scan Once again, you're looking for books, periodicals, newspapers, t.v. and radio programs that deal with political, social, technological, and economic issues. Be sure to include local (eg. Chambers of Commerce), state/provincial (eg. Texas Monthly, Alberta Report), national, and global resources. Table 1 lists some specific resources in the United States and Canada. Conference proceedings, informed individuals, and dissertations are other information sources. Remember that you are looking for emerging trends, so don't overlook such resources as The Futurist, The Christian Science Monitor, and Rolling Stone.

Identify issues and trends to scan Trends tend to take the shape of a bell curve. Most emerging trends begin with whispers -- isolated events that may be reported in uncommon sources. As the idea catches on, there in a convergence of opinion, groups,

Table 1. Suggested Resources

	United States	Canada
Political	Congressional Quarterly	Law Now
Social	American Demographics	Social Trends
Technological	Technological Review, Omni, Discover	
Economic	U.S. News & World Report., Business Week	The Economist, Canadian Business
Educational	The Chronicle of Higher Education	University Affairs

and events. Then mainstream media picks it up, and suddenly it's everywhere you look. Often, at this point, politicians decide this is an important event that warrants legislation. Then the issue begins to subside, and the world waits for the next trend. The purpose of the scanning team is to identify those emerging trends that may become potential threats or opportunities before politicians get hold of them!

The sample keyword checklist on page 2 of the handouts is an adaptation of one used by the University of Minnesota (Pflaum & Delmont, 1988). The idea is not to select so many issues that the system is unwieldy. From 25-40 categories is best. These categories should be selected and agreed upon by your scanning committee, based on the issues of greatest concern to your organization.

Initiate scanning and establish record-keeping system By assigning each member of the scanning team certain resources to scan, you assure wider coverage of sources. As you read the information in print or see or hear it on t.v., radio, or at conferences, you

may ask yourself various questions to decide if this is information suitable for inclusion in the scanning report. Is this a new idea? Does it contradict prevailing wisdom? Does it come from a surprising source? Is there a pattern of prevailing events?

The form on page 3 of the handouts provides a guideline for reporting information. Reports may be turned in on a regular basis to the person assigned to do the compiling and filing. Use of a computer database will greatly facilitate the retrieval of information by issue. Old, out-of-date records may also be retrieved and disposed of easily.

Analyze the results Now that the database is full of information, what do you do with it? This is the question for the scanning team to work on as a group. At weekly, monthly, or quarterly meetings, your scanning team may brainstorm, discuss, or employ the Delphi or Nominal Group Technique to decide which items to drop, act on, or further monitor. Use the power of the group to look for trends and connections between different abstracts. How does each abstract impact the total system? Look for second and third order effects. For example, increasing adolescent violence in our society will carry over to our colleges and universities. More resources will be needed for campus security, counseling centers, and safety programs for students.

Report the results Who can benefit from the scanning information? A compilation of the current selected abstracts may be sent to colleagues and the administration. Perhaps your campus has various scanning teams. You may want to form a scanning network or hold campus-wide scanning meetings to share information. You may also

publish scanning reports in departmental monthly newsletters, or campus newspapers.

Determine the special action based on scanning results With a lot of work, time and experience, trends will begin to emerge. However, scanning may take years to perfect, so don't expect immediate results. If you're working on a five-year plan, begin scanning the first year of your present plan. Strategic plans, unit plans, and even new program or course planning will also benefit from environmental planning.

Remember, try to get a wide variety of participants on the scanning team, including administrators. Scan as wide an assortment of resources as manageable, but keep in mind that the key is to focus your scanning efforts to avoid information overload. Above all, get the information out to those who can use it.

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SCANNING PROCESS

1. Form a scanning team.

2. Search for and select information resources to scan.

3. Identify issues and trends to scan.

4. Conduct scanning and establish record-keeping system.

5. Analyze the results.

6. Report the results.

7. Determine the special action based on scanning results.

ENVIRONMENTAL SCANNING

SAMPLE KEYWORD CHECKLIST

Check all key words that apply. At least three key words must be checked in order for this report to be entered into the data base.

Social/Political

___ bilingualism (biling)
___ business/industry (busind)
___ consumer rights (conrit)
___ environment (enviro)
___ legal issues (leglis)

Economic

___ economic indicators (ecoind)
___ income distribution (incmds)
___ taxes (taxes)
___ trade (trade)

Lifestyles, Values Groups

___ Asian (asian)
___ baby boomers (babybo)
___ Black (black)
___ elderly (eldrly)
___ health/fitness (helfit)
___ Hispanic (hispan)
___ poor (poor)
___ religion (relign)

Demography

___ population trends (poptre)
___ global (glopop)
___ national (natpop)
___ regional (regpop)
___ state (stapop)
___ societal structures (socstr)
___ migration patterns (migpat)
___ minorities (minor)
___ socio-economic status (ses)

Science/Technology

___ artificial intelligence (artint)
___ computation (comput)
___ telecommunications (teleco)

Subject Areas

___ adult education (aded)
___ agriculture (agri)
___ computer science (comp)
___ liberal arts (lbar)
___ women's studies (wmst)

Education

___ admissions (admiss)
___ budgets (budget)
___ curriculum (curric)
___ evaluation (evalua)
___ faculty salaries (facsal)
___ fellowships (felshp)
___ financial aid (finaid)
___ graduate education (graded)
___ higher education (hied)
___ international program (intlpg)
___ language program (langpg)
___ management (mgmt)
___ mkt/public relations (mktpr)
___ nontraditional (nontra)
___ research (resrch)
___ sabbatical (sabcal)
___ seminars (semars)
___ students (studnt)
___ student services (stusrv)
___ support services (supsrv)
___ tenure & promotion (tenpro)

Adapted from: Pflaum, A. M., & Delmont, T. J. (1988). External scanning -- A tool for planners. In J. M. Bryson & R. C. Einsweiler (Eds.), Strategic planning: Threats and opportunities for planners. (p. 155). Chicago: Planners Press.

ENVIRONMENTAL SCANNING

INFORMATION SUMMARY

When preparing a summary of the information you have found, write as though you had only a few minutes to describe the article to a friend. What is the most important idea or event that indicates change or innovation? Whenever possible, include quantitative data (for example, percent of purchasers, number in attendance) Limit your summary to no more than a half-page of single-spaced, typewritten copy. Include a statement of the implications of the article for your institution. End with the source of the information, your name, and date.

KEYWORD: SUMMARY:

IMPLICATIONS:

SOURCE:

NAME: DATE:

Adapted from: Morrison, J. L. (1992). Environmental scanning workshop. Lansing, MI: Environmental Scanning Consortium of Michigan. (ERIC Reproduction Service No. ED 347 882)

ENVIRONMENTAL SCANNING

BIBLIOGRAPHY

Burack, E. H., & Mathys, N. J. (1989). Environmental scanning improves strategic planning. Personnel Administrator, April, 82-87.

Clagett, C. A. (1987). Scans solo: A one-person environmental scanning process. Largo, MD: Prince George's Community College. (ERIC Document Reproduction Service No. ED 305 958)

Feuer, M. J. (1983). From environmental scanning to human resources planning: A linkage model applied to universities. Human Resource Planning, 72-82.

Harman, W. (1988). Global mind change: The promise of the last years of the twentieth century. Indianapolis, IN: Knowledge Systems.

Jain, S. C. (1987). Environmental scanning in U. S. corporations. Long Range Planning, 17(2), 117-128.

Jonsen, R. W. (1986). The environmental context for postsecondary education. New Directions for Institutional Research, 52, 5-19.

Meeker, H. (1993). Hands-on futurism: How to run a scanning project. The Futurist, 27(3), 22-26.

Morrison, J. L. (1992). Environmental scanning workshop. Lansing, MI: Environmental Scanning Consortium of Michigan. (ERIC Reproduction Service No. ED 347 882)

Morrison, J. L. (1987). Establishing an environmental scanning/forecasting system to augment college and university planning. Planning for Higher Education, 15(1), 7-22.

Narchal, R. M., Kittappa, K., & Bhattacharya, P. (1987). An environmental scanning system for business planning. Long Range Planning, 20(6), 96-105.

Nunley, C. (1987). Focus on the future: Involving institutional constituencies in environmental examination. Planning for Higher Education, 15(1), 23-24.

Pflaum, A. M., & Delmont, T. J. (1988). External scanning -- A tool for planners. In J. M. Bryson & R. C. Einsweiler (Eds.), Strategic planning: Threats and opportunities for planners. (pp. 145-159). Chicago: Planners Press.

Renfro, W. L., & Morrison, J. L. (1984). Detecting signals of change, the environmental scanning process. The Futurist, August, 49-53.

Slaughter, R. A. (1990). Assessing the QUEST for future knowledge. Futures, March, 153-166.

Toffler, A. (1990). Power shift: Knowledge, wealth, and violence at the edge of the 21st century. New York: Random House.